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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/702,493	10/31/2000	Peter W. Estelle	NOR-937	9829

7590 09/10/2002

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EXAMINER
KEASEL, ERIC S

ART UNIT	PAPER NUMBER
3754	

DATE MAILED: 09/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/702,493	Applicant(s) ESTELLE	
	Examiner Eric Keasel	Art Unit 3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 July 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,16 and 19-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4, 16, and 19-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Objections

1. Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In claim 4, "a peak current duration control connected to said power supply and providing a signal varying as a function of the output voltage of said power supply" is the "driver circuit ... connected to ... said power supply and providing an output signal ... varying as a function of the output voltage of said power supply" in claim 1.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4 and 19-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 appears to either being missing words or having extra words in lines 7-9 ("...an output signal to said solenoid an initial peak current..."?).

Claim 4 recites "a signal" in line 2, which appears to be a double inclusion of "an output signal" in claim 1, line 8. It is vague and indefinite as to whether "a signal" in claim 4 is meant to be the same signal as was recited in claim 1 or perhaps a separate and distinct signal. Claim 4 also recites "a function of the output voltage of said power supply" in line 3, which appears to be a double inclusion of "a function of the output voltage of said power supply" in claim 1, lines 10

and 11. It is vague and indefinite as to whether "a function of the output voltage of said power supply" in claim 4 is meant to be the same function of the output voltage of said power supply as was recited in claim 1 or perhaps a separate and distinct function of the output voltage of said power supply. Note, it appears that claim 4 does not further limit claim 1.

Claim 21 recites "a duration varying..." in line 2, which appears to be a double inclusion of "a variable duration" in claim 19, lines 7 and 8. It is vague and indefinite as to whether "a duration varying..." in claim 21 is meant to be the same variable duration as was recited in claim 19 or perhaps a separate and distinct variable duration.

In light of the above informalities, the claims have been examined as could best be understood by the examiner. The examiner's failure to apply prior art to any of the claims should not be construed as an indication of allowable subject matter.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-4, 16, and 19-23 (as understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Nojima (US Patent Number 5,812,355) in view of Oyama et al. (US Patent Number 4,878,147).

Nojima discloses the fluid dispenser for dispensing a fluid onto a substrate with a solenoid-actuated dispensing valve, power supply, and driver circuit (along with the associated

method), but fails to disclose the details of the driver circuit initial peak current having a duration determined as an inverse function of the output voltage of the power supply. Oyama et al. disclose a similar driver circuit with initial peak and holding currents with the duty ratio (duration) reduced inversely proportional to the power supply voltage. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the driver circuit of Oyama et al. with the fluid dispenser of Nojima in order to overcome the problems of different values of the power supply from a production efficiency standpoint as taught by Oyama et al. (see column 1, line 12 to column 2, line 18).

6. Claims 1-4, 16, and 19-23 (as understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Nojima in view of Ohtsuka (US Patent Number 5,737,172).

Nojima discloses the fluid dispenser for dispensing a fluid onto a substrate with a solenoid-actuated dispensing valve, power supply, and driver circuit (along with the associated method), but fails to disclose the details of the driver circuit initial peak current having a duration determined as an inverse function of the output voltage of the power supply. Ohtsuka discloses a similar driver circuit with initial peak and holding currents with the pulse width for a voltage value decreasing in inverse proportion to the power supply voltage. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the driver circuit of Ohtsuka with the fluid dispenser of Nojima so that the absorbing force and an input to the coil can be maintained at a constant level, irrespective of the voltage value as taught by Ohtsuka (see column 4, lines 54-59).

Double Patenting

7. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

8. Applicant is advised that should claim 16 be found allowable, claim 19 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claims 1-4, 16, and 19-23 (as understood) are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 4 of copending Application No. 09/880,649 (commonly assigned to Nordson Corporation) in view of Oyama et al.

Claim 4 of copending Application No. 09/880,649 discloses the fluid dispenser for dispensing a fluid onto a substrate with a solenoid-actuated dispensing valve, power supply, and driver circuit (along with the inherent associated method), but fails to disclose the details of the driver circuit initial peak current having a duration determined as an inverse function of the output voltage of the power supply. Oyama et al. disclose a similar driver circuit with initial peak and holding currents with the duty ratio (duration) reduced inversely proportional to the power supply voltage. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the driver circuit of Oyama et al. with the fluid dispenser of Nojima in order to overcome the problems of different values of the power supply from a production efficiency standpoint as taught by Oyama et al. (see column 1, line 12 to column 2, line 18).

This is a provisional obviousness-type double patenting rejection.

11. Claims 1-4, 16, and 19-23 (as understood) are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 4 of copending Application No. 09/880,649 (commonly assigned to Nordson Corporation) in view of Ohtsuka.

Claim 4 of copending Application No. 09/880,649 discloses the fluid dispenser for dispensing a fluid onto a substrate with a solenoid-actuated dispensing valve, power supply, and

driver circuit (along with the inherent associated method), but fails to disclose the details of the driver circuit initial peak current having a duration determined as an inverse function of the output voltage of the power supply. Ohtsuka discloses a similar driver circuit with initial peak and holding currents with the pulse width for a voltage value decreasing in inverse proportion to the power supply voltage. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the driver circuit of Ohtsuka with the fluid dispenser of Nojima so that the absorbing force and an input to the coil can be maintained at a constant level, irrespective of the voltage value as taught by Ohtsuka (see column 4, lines 54-59).

This is a provisional obviousness-type double patenting rejection.

Response to Arguments

12. Applicant's arguments filed 16 July 2002 have been fully considered but they are not persuasive.

Applicant argues that the switch of Oyama et al. has a duty cycle inversely proportional to the power supply voltage and that the pulse signal does not. Applicant also argues that the peak current duration of Oyama et al. is fixed. The examiner disagrees (see, for example, column 2, lines 12-17). Applicant also argues that there is no motivation to combine the references. The examiner disagrees. The rejection clearly sets forth the motivation to combine.

Applicant makes similar arguments regarding Ohtsuka (e.g. the duration is fixed). The examiner disagrees. Ohtsuka clearly discloses that the duration varies. In fact, column 4, lines 54-59 is almost word-for-word the same as applicant's description of the drive circuit.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Keasel whose telephone number is (703) 308-6260. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry C. Yuen can be reached on (703) 308-1946. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3588 for regular communications and (703) 305-3588 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

EK 8 SEP 02
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September 8, 2002

Henry C. Yuen
Supervisory Patent Examiner
Group 3700